Greater Vancouver Regional District

Position Description: OPERATIONS OPTIMIZATION SOFTWARE SPECIALIST (May 2007)

Purpose: Responsible for maintaining and updating operations optimization models and systems, including adding new facilities and equipment, adding new decision rules, modifying performance criteria, troubleshooting, maintaining data quality and managing integration of the operations optimization systems with real-time process control systems (SCADA/CDAC) and IT infrastructure.

Duties: *(The duties described hereunder are intended to be representative of the position and are not to be considered all inclusive.)*

Develop, modify, test and maintain optimization system models to reflect actual water and wastewater facility and equipment characteristics. This includes creation, deletion or modification of process facilities, systems, equipment, and their related performance characteristics in system models, as well as decision support rules and alerts. Coordinate changes with real-time process control systems (SCADA/CDAC) and IT, to ensure integrity and consistency within all systems. Participate in commissioning activities where required to verify data integrity into and out of optimization systems.

Working closely with the System Planning and Scheduling Team, monitor the performance of optimization systems against real-time water and wastewater systems operation, and prepare system performance reports. Identify opportunities for improvement in both real-time systems operation and optimization system operation. Monitor data quality and identify data points which are unreliable or out of calibration. Coordinate with real-time process control systems (SCADA/CDAC), IT, and others with respect to existing and future data needs for the optimization systems.

Monitor and troubleshoot optimization system technical performance, prepare problem reports, and coordinate technical assistance from relevant internal or external support groups.

Coordinate with real-time process control systems (SCADA/CDAC) and IT in relation to the development, integration, operation and support of optimization components and applications within those areas (i.e. Optimization Monitor, Pump Valve Scheduler, Corporate Historian, web-enabled applications, etc).

Coordinate and obtain technical maintenance and support of optimization system hardware and software from relevant internal support groups. Comply with relevant support group policies and procedures with respect to the application and use of optimization systems components within support group environments. Develop and maintain operations optimization system technology migration plan.

Participate in training programs relevant to duties of the job to maintain a high level of competency.

Assist with training related to operations optimization systems as required.

Prepare and maintain neat and accurate records related to the work.

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Duties continued:

Work in compliance with all GVRD safety policies, procedures and WCB regulations.

Perform other related duties as required

Requirements:

Bachelor's degree in computer science, mathematics or related field, with three years experience in real-time systems operations in a process, manufacturing, or utility environment, system design, modifications and analysis, **or** two-year technology diploma in computer systems, with 5 years applicable experience.

Demonstrated knowledge of, and experience with, database management software and systems such as SQL, and OSI PI historian. Experience in linking management and engineering information systems to real-time operating environments is preferred.

Demonstrated understanding of real-time process control systems (SCADA/CDAC) and their operational application and use. Experience with programming of real-time process control systems is preferred.

Demonstrated understanding of water supply and wastewater collection system modeling.

Experience with process engineering, hydraulic principles, and systems analysis is preferred.

Experience with instrumentation used in real-time process control systems is preferred.

Sound knowledge and expertise in the use of word processing; spreadsheet applications, databases and email.

Demonstrated initiative and responsible attitude.

Experience working independently without direct supervision and using sound judgment to make decisions

Demonstrated analytical and problem solving skills

Proven ability to communicate effectively in a clear and concise manner both verbally and in writing.

Ability to work cooperatively in a team environment by establishing and maintaining effective working relationships.

Must be able to read and use engineering drawings, plans and sketches.